

A DEVICE AND METHOD FOR MANAGING FAULT DETECTION AND  
FAULT ISOLATION IN VOICE AND DATA NETWORKS

ABSTRACT OF THE DISCLOSURE

5           The present invention provides a device and method for managing fault detection  
and isolation in voice and data networks. Specifically, the present invention is a device  
and method for fault detection and fault isolation that can be used to validate connectivity  
of a central site to a number of connected client devices. The present invention operates  
stage by stage, working from the central site back to a connected client device. The  
10   present invention can be controlled from a central maintenance station and as such does  
not require direct user enabling. In one embodiment, the present invention provides an  
intelligent device (e.g., an intelligent data concentrator) for coupling an electronic device to  
a network comprising a first interface for communicatively coupling the intelligent device  
to the network and a second interface for communicatively coupling the intelligent device  
15   to a plurality of client devices such that the client devices are communicatively coupled to  
the network. The intelligent device also comprises means for processing and interpreting  
data coupled to the first interface, and fault detection means coupled to the means for  
processing and interpreting data, wherein the fault detection means performs fault  
detection in the network. In one embodiment, the intelligent device operates in  
20   conjunction with a central control site in performing fault detection.